

**METHOD ARRANGEMENT AND COMPUTER SOFTWARE FOR THE  
PRINTING OF A SEPARATOR SHEET BY MEANS OF AN  
ELECTROPHOTOGRAPHIC PRINTER OR COPIER**

- 5 The invention concerns a method for printing of a separator sheet, in particular with the aid of an electrophotographic printer or copier. The invention also concerns an arrangement and computer software for printing of a separator sheet with the aid of an electrophotographic printer or copier.
- 10 First data that contain information of elements of a separator sheet to be printed on a register tab. Various text and/or graphic programs such as, for example, Microsoft Word, Corel Draw, Illustrator, Pagemaker and QuarkXpress are known via which the outlines of a separator sheet can be recreated with register tabs and texts can be positioned on the register tab. Furthermore, printer-specific programs
- 15 such as DigiPath by the company Xerox, Micropress by the company T/R-Systems and Imagesmart by the company Heidelberger are known with which separator sheets is [sic] designed as print data stream is generated for printing of the separator sheets.
- 20 However, a significant manual effort is required in the printing of separator sheets with the aid of these known programs, in particular in the positioning of the text on the register tab of the separator sheet. An automatic operation, what is known as a batch operation for insertion of separator sheets into an existing print data stream, is not known. Also, no operating system-spanning solutions are known in which
- 25 pre-configured separator sheets can be integrated into a print data stream existing then at a later point in time, whereby the configuration of the separator sheets occurs with the aid of a data processing system with a first operating system and the inclusion of the separator sheets into an existing print data stream with the aid of a data processing system occurs with a second operating system.

It is the object of the invention to specify a method, an arrangement as well as a computer software for printing of a separator sheet, in particular with the aid of an electrophotographic printer or copier, in which the printing of a separator sheet is possible in a simple manner and with low operating effort.

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The object is achieved for a method for printing of a separator sheet (in particular with the aid of an electrophotographic printer or copier) with the features of the patent claim 1. Advantageous developments of the invention are specified in the dependent patent claims.

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Via the division of the processing steps for execution with the aid of a first program module and with the aid of a second program module, the generation and configuration of the print images for the separator sheet and the further processing of this configuration information and the inclusion into a print data stream by two data processing systems is possible with different operating systems. The execution of the program modules on data processing systems with different operating systems is also designated as execution on different platforms. In particular no special interface is necessary for execution of the second program module. The second program module only has to be invoked with predetermined parameters and data are generated for integration into the print data stream. An automated workflow is also thereby simple to realize.

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A second aspect of the invention concerns an arrangement for printing of a separator sheet, in particular with the aid of an electrophotographic printer or copier. A first data processing system executes a first program module that generates first data that contain at least information for formatting of elements to be printed on a register tab. A second data processing system executes a second program module that processes the first data and generates the second data. Print data for generation of a print image on the register tab can be added to a print data stream with the aid of the second data. An electrophotographic printer or copier prints at least the register tab of the separator sheet with a print image.

Via this inventive arrangement, it is achieved that both the arrangement, design and formatting of elements of a separator sheet to be printed on the register tab and the inclusion of graphic elements according to this information into a print data stream occurs in a very simple manner and without elaborate operator control actions. Furthermore, it is possible via this inventive arrangement that the generation of the first data and the processing of the second data can occur not only at various points in time but rather can also occur with the aid of various data processing systems, whereby a very flexible workflow for generation of whole documents that contain separator sheets is possible in a simple manner.

A third aspect of the invention concerns a computer software that comprises commands and data in coded form that, after loading, induce a computer system to execute the inventive method steps.

Via such a computer software it is achieved that the printing of separator sheets (in particular with the aid of an electrophotographic printer or copier) is possible in a very simple manner and without significant operator interactions by an operating personnel.

For better understanding of the present invention, reference is made in the following to the preferred exemplary embodiments shown in the drawings, which preferred exemplary embodiments are described using specific terminology. However, it is noted that the protective scope of the invention should not thereby be limited, since such variations and further modifications to the shown devices and/or the method as well as such further applications of the invention as they are shown are viewed as typical present or future expertise of a competent average man skilled in the art. Figures show exemplary embodiments of the invention, namely:

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- Figure 1 a user interface for generation of information for printing of separator sheets;
- Figure 2 a user interface for generation of a new separator sheet profile;
- 5 Figure 3a a preview of a separator sheet set according to the separator sheet profile configured in Figure 2 according to a first default setting;
- Figure 3b a preview of a separator sheet set according to the separator sheet profile configured in Figure 2 according to a second default setting;
- 10 Figure 4 a user interface for formatting of text on a register tab;
- Figure 5a a section of a user interface for automatic generation of texts that are printed on the register tab of a separator sheet set;
- 15 Figure 5b a user interface for selection of a number range, whereby the user interface is output via the user interface according to Figure 5a based on the selection of the menu item “numbers”;
- 20 Figure 6 a user interface for generation of individual texts as well as for selection of a file that contain the print images for printing of the separator sheet;
- Figure 7 a user interface for generation of graphic elements that should be generated on all separator sheets;
- 25 Figure 8 a user interface to establish a target file and for generation of a print image preview of at least one register tab;
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- Figure 9 a user interface for input of file information of a file to be generated with print data;
- 5 Figure 10 a user interface for insertion of separator sheets into an existing document;
- Figure 11 the first part of a workflow of a first program module for generation of data for printing of separator sheets;
- 10 Figure 12 the second part of the workflow according to Figure 11; and
- Figure 13 a workflow for generation of print data with the aid of a second program module from configuration data that have been generated with the aid of the first program module.
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- Figure 1 shows a user interface that is output with the aid of a graphical user interface of a first data processing system. With the aid of the user interface 10, what is known as a separator sheet profile can be selected with the aid of a pull-down menu from a plurality of default and stored separator sheet profiles. The separator sheet profile “A4Tab10WI.tabtype” is currently selected. Significant adjustments of the separator sheet profile, such as the producer of the separator sheets, the sorting of the register tabs, the number of the register tabs at the separator sheet height, the type of the register tabs, the margin cut and the edge style of the separator sheet are specified in section 14 of the user interface 10
- 20 corresponding to the default settings of the selected profile. A default separator sheet profile preferably concerns a separator sheet set, whereby the combined register tabs of a separator sheet set yield the total height of a separator sheet. A plurality of separator sheet sets can also be associated with a document. The paper format of the separator sheet without register tab and the format of a register tab is
- 25 [sic] specified in the section 16 of the user interface 10.
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A register tab is also designated as a tab or a register slip. A new profile with specifications that are contained in the sections 14 and 16 for the presently-selected profile can be generated for a further separator sheet set with the aid of the graphical function key 18, whereby this separator sheet set then created is added to the existing separator sheet profiles and can subsequently be selected via the pull-down menu 12. With the aid of the graphical function key 20, a preview is possible of a separator sheet set that is output after activation of this graphical function key 20 in a separate screen window on the display unit on which the user interface 10 is shown.

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After the activation of the graphical function key 18, the user interface 28 shown in Figure 2 is output on the display unit. As already mentioned, a new separator sheet profile is generated with the aid of the user interface 28. The name of the separator sheet profile to be generated is input and subsequently displayed with the aid of an input and output field 30. A manufacturer for the pre-manufactured separator sheet set for which the current profile is generated is entered into the input and output field 32. A sorting of the register tabs is established with the aid of a pull-down menu 34, whereby a selection can be made between ascending and descending sorting of the register tabs. The number of the register tabs per page height is established in the input and output field 36. The separator sheet type is selected in the input and output field 38 with the aid of a pull-down menu, whereby the type “waterfall” and the type “single slip” can be selected.

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The margin cut of the register tabs is input in the input and output field 30 and the edge style of the register tabs is input in the input and output field 42. The paper format of a separator sheet without register tab is entered as a value in mm with the aid of the input and output fields 44 and 46. Alternatively, a standard paper format (for example the paper format A4) can be selected with the aid of a pull-down menu 48, whereby the dimensions associated with this paper format are then automatically entered into the input and output fields 44 and 46. The dimensions of a register tab are specified in mm in the input and output fields 50, 52, 53. A

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separator sheet profile selectable via the pull-down menu 12 according to Figure 1 is loaded with the aid of the graphical function key 54 and changed with the aid of the input and output fields 30 through 53.

- 5 A further control panel with a dialogue for storage of the newly created or, respectively, changed separator sheet profile is invoked with the aid of the graphical function key 56. The changes input in the input and output fields 30 through 53 are discarded with the aid of the graphical function key 58 and these changes are confirmed with the aid the graphical function key 60, whereby after  
10 activation of the graphical function key 58 or 60 the user interface 58 [sic] according to Figure 2 is no longer output by the display unit and the user interface 10 according to Figure 1 is subsequently displayed.

- As already mentioned, a preview of a separator sheet set is activated with the aid of  
15 the graphical function key 20 of the user interface 10 according to Figure 1. This preview is output in a separate screen window on the display unit. Such a screen window 62 is shown in Figure 3a for the selected separator sheet profile “A4Tab10WI.tabtype”. The separator sheet set shown in Figure 3a contains ten register tabs, whereby the register tabs are sorted in descending order and arranged  
20 according to the type “waterfall”. In the type “waterfall”, the register tab 1 has a height of 1/10 of the page height of 297 mm of the A4 paper format. The register tab 2 has 2/10 of the height of the paper format of the separator sheet, whereby half of the height of the register tab 2 of the separator sheet height [sic] is covered by the register tab 1. The register tab 3 has a height of 3/10 of the total height of the  
25 separator sheet, whereby 2/3 of the register tab 3 are covered by the register tab 2. The subsequent register tabs respectively have a height of 1/10 of the total height of the separator sheet in addition to the total height of the register tab of the preceding separator sheet. The register tab 10 of the separator sheet set according to Figure 3a thus has the total height of the separator sheet. The screen window 62  
30 can be closed with the aid of the graphical function key 64, whereby a preview of the separator sheet set is no longer displayed.

A screen window 66 with a preview of a separator sheet profile whose register tabs are sorted in descending order and that contains four single slips is shown in Figure 3b. The separator sheet profile according to Figure 3b also has a margin cut of 7  
5 mm and a setting for round card edges. The paper format of the separator sheet is likewise the A4 paper format, whereby the registration tables respectively have a height of 63.3 mm. In contrast to the type “waterfall”, in the type “single slips” the lower edge of the first register tab is arranged at the same height of the second sheet, as the upper edge of the second register tab and the lower edge of the second  
10 register tab is [sic] arranged on the same height as the upper edge of the third register tab. The lower edge of the third register tab has the same height as the upper edge of the fourth examination region. The upper edge of the first register tab and the lower edge of the fourth register tab have a separation of, respectively, 7 mm from the upper edge of the separator sheet or, respectively, from the lower  
15 edge of the separator sheet. The screen window 66 is closed with the aid of the graphical function key 68.

An assistant for formatting and configuration of designs of separator sheets of one or more separator sheet sets is available to the user interface 10 and the further,  
20 subsequently shown user interfaces. The assistant supports an operating personnel in the configuration and in the input of data, in particular for labels and for generation of graphic elements on the separator sheets of at least one separator sheet set, including the register tabs of the separator sheet set. Individual user interfaces of the assistant can be switched between with the aid of the graphical  
25 function keys 22, 24, 26 contained in the graphical user interface 10, whereby the assistant is ended via the graphical function key 26. The graphical function keys 22, 24, 26 are also contained in other user interfaces of the assistant and are subsequently designated with the same reference characters.

30 A user interface 70 for formatting of the text to be printed on a register tab is shown in Figure 4. The alignment of the text is thereby preset in a first section 72,



whereby a selection can be made between right-justified, left-justified and centered text, and the displacement of the text in the x-direction and y-direction can be adjusted with the aid of selection fields. The rotation of the text on the register tab can be preset in the section 74. A sample text via which the character formatting of the text to be generated on the register tab is shown is displayed in a third section 76. A menu for adjustment of the character formatting of the text to be generated on the register tab can be invoked with the aid of the graphical function key 78.

- 10 The sample text is then shown in a corresponding formatting in the section 76 after the change of the font type, font size, display type or font color. According to the settings in the first section 72, in the second section 74 and in the third section 76, a preview of a register tab is displayed in a fourth section 80. The preview of a complete separator sheet set, namely the preview according to Figure 3a and 3b, 15 can also be activated with the aid of the graphical function key 82.

A user interface 84 via which a text can be selected and configured for automatic labeling is shown in Figure 5a. The user interface 84 contains a selection window 86 in which various types of standard labels of the register tabs can be selected.

- 20 The register tabs of the separator sheet set can thus respectively be printed as a standard label with an uppercase lettering or lowercase lettering of the alphabet in descending or ascending order or, respectively, with a number. If, for example, the menu item "numbers" 88 is selected, the user interface 90 is output on the display unit in addition to the user interface 84. The user interface 90 contains a first input and output field 92 in which a number value can be entered, which number value is 25 printed on the register tab of the first separator sheet of the separator sheet set. A number value that specifies the end of the number range that is used for the standard labeling of the register tabs of the separator sheet set or, respectively, of a plurality of separator sheet sets can be entered into the input and output field 94.
- 30 The order of the number range can be reversed with the aid of the check box 96, such that the number value 99 is printed on the register tab of the first separator

sheet and the number value 1 is printed on the register tab of the last separator sheet.

5 A user interface 100 is shown in Figure 6 via which labeling texts that serve for labeling of the register tabs of the separator sheets are selected and generated. A dialogue for loading of text data that should serve for labeling of the register tab is opened with the aid of the graphical function key 102 and a dialogue for exporting or, respectively, for storage of generated or modified label texts is activated with the aid of the graphical function key 104. Text files in which the texts of  
10 successive register tabs are separated by commas are preferably loaded. A text that should be added to a text list is input in an input and output field 106. A line wrap is forced with the aid of a perpendicular line in the input. Such a line is also designated as a “pipe”. The already-input texts are displayed in a display field 107, whereby a register tab is respectively associated with a line and the order of  
15 the lines in the section 107 is then generated on the register tabs of successive separator sheets. The text of the lists input in the input field 107 is inserted below the line marked by a marking 110 via activation of the graphical function key 108. The text of the line provided with a marking 110 can be displayed and changed in the field 106 with the aid of the graphical function key 112. The line or,  
20 respectively, the entry selected via the marking 110 is deleted with the aid of the graphical function key 110. All texts displayed in the section 107 are deleted with the aid of the graphical function key 116. An index on a fixed disc storage of a data processing system as well as a file name in which or, respectively, under which the input or changed data are stored is [sic] specified below the list 107.

25 With the aid of a selection field 118 (what is known as a check box), via activation of the check box it is established that the separator sheets are superimposed with print images that are stored in a Portable Document Format file (PDF). The storage location and file name of the PDF file in which the print data of print  
30 images are stored can be input and output in the input and output field 120. A dialogue for searching through data sources and for selection of a file with the print

images can be activated with the aid of the graphical function key 122. The print image that is associated with the first print page in the selected file is generated on each separator sheet via activation of the check box 124. In Figure 7, a user interface 130 is shown via which the further graphic elements that are subsequently generated on the separator sheets are generated and/or selected. The graphic elements established with the aid of the graphical user interface 130 are then generated at the preset position on each separator sheet. A text that is generated on each separator sheet at a position that is established with the aid of the setting fields in the section 134 of the user interface 130 is input in the input and output field 132.

A dialogue to establish the font type can be selected with the aid of the graphical function key 136. Both the position and the rotation of the input text can be selected in the section 134. With the aid of a toolbar 136 of the user interface 130, the text input in the input and output field 132 with the associated position specifications of a list can be added with supplementary texts to be generated on each separator sheet. The respective supplementary text is again removed from the list via selection of a text in the list 140 and activation of the delete symbol in the toolbar 138.

A user interface 142 is shown in Figure 8. The file name of a target file is input in an input and output field 144 to store the settings effected with the aid of the previously-specified user interfaces. Print data in a portable document format (PDF) are then stored in this target file. Such a portable document format is, for example, PDF by the company Adobe. A preview 148 of the separator sheets is possible with the aid of the graphical function key 166. The creation of the separator sheets with the aid of the assistant ends with the graphical function key 150 and the separator sheets are stored in the selected PDF file.

A user interface 152 via which file information are input into and associated with a PDF file is shown in Figure 9. Thus, for example, the name of the program

module, the author, the title and the theme as well as an event record file (what is known as a log file) can be specified. The user interface 152 can, for example, be activated via activation of the input and output field in Figure 8 with the aid of the right mouse button.

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A user interface 154 is shown in Figure 10 via which the separator sheets contained in a PDF file can be associated with a document likewise present as a PDF file and be inserted into this existing document. The user interface 154 has a first toolbar 156 and a second toolbar 158. The separator sheets generated with the aid of the assistant are shown as pages 1 through 14 in a first display and selection field 160. Further generated separator sheets can be displayed in the field 160 with the aid of the positioning bar 162. A page to be inserted into the document can be selected with the aid of a marker 163 and be inserted (with the aid of function keys of the second toolbar 158) at a position specified in the display and selection field 164. The insertion position of the third separator sheet is at the eleventh position of the overall document in the first column of the display and selection field 164. According to Figure 10, a first separator sheet is inserted into the overall document as page 1, a second separator sheet is inserted into the overall document as page 4 and a third separator sheet is inserted into the overall document as page 11.

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A workflow of a first program module for generation of print data for separator sheets is shown in Figures 11 and 12. The workflow is started in the step S10. File information of a PDF file is input in step S12, for example with the aid of a user interface according to Figure 11.

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In step S14, via an operator control action it is subsequently selected whether a new separator sheet template is generated or an existing separator sheet template should be changed. If this is the case [sic], in step S16 a new separator sheet template is thus created or, respectively, an existing separator sheet template is changed.

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However, if, via an operator input in step 14, it is selected that no separator sheet template is created or changed or if the step S16 for creation or modification of a separator sheet template is terminated, a preview of the selected separator sheet set occurs in step S18. The position, rotation and font formatting of the text to be  
5 generated on a register tab or, respectively, texts to be generated on the register tabs is subsequently set in step S20. In step S22, it is subsequently selected via an operator control action whether an existing text should be loaded. If a new text should be loaded, a text file is loaded in step S24. However, if no text present as a text file should be loaded, in step S26 a new text is created or a text is selected  
10 from standard texts for the register tabs of the separator sheet set.

If the text file was loaded in the steps S24 or a text was created or selected in the step S26, in the step S29 it is subsequently selected with a user input whether the individual separator sheets should be superimposed with print images that are  
15 stored in a PDF file, whereby the print data are associated with respective print pages in this PDF file.

If the separator sheets should be superimposed with further print pages, in the step S30 the data are loaded from the PDF file. The loaded data are subsequently  
20 associated with the individual separator sheets in the step S32. If the data have been associated with the individual separator sheets in the step S32 or if, in step S28, it is determined that the separator sheets should not be individual superimposed with print images, the workflow continues in step S34. In the step S34, it is checked whether all separator sheets should be superimposed with further  
25 graphic elements, whereby the same graphic elements are then printed on each separator sheet. If this is the case, data for generation of these graphic elements to be generated on each page are thus loaded from a file or input via a user interface.

These data are subsequently associated with each of the separator sheets in step  
30 S38. If the data have been associated with the separator sheets in step S38 or if it was established in step S34 that the separator sheets should not be superimposed

with further print images, in the step S40 a target file is established in which the print images of the separator sheets are stored with the aid of a PDF file.

Formatting data of the separator sheet set are subsequently determined and stored in an initialization file (ini file) in the step S42. The initialization file in particular  
5 contains format information about the separator sheet set and format information for positioning and formatting of the text on the register tabs of the separator sheet set. The text data of the register tab texts and print image data for further print images that should be generated on the separator sheets are preferably stored in separate files that are then loaded for generation of the target file by a generator  
10 program module and are processed together with the information stored in the initialization file. The target file is then generated with the aid of the processed data.

In step S44, it is subsequently checked whether a preview of the finished separator  
15 sheet set should be generated. If this is the case, in step S46 a first parameter set is subsequently generated with which a generator program module is subsequently invoked in step S48. If, in step S44, it is established that no preview should be generated, a second parameter set is subsequently generated in step S47 and the generator program module is subsequently invoked in step S48. After the step  
20 S48, in step S50 it is checked whether the generator program module has generated data of the target file. If this is not the case, step S50 is repeated. The program steps of the generator program module are explained in still closer detail in the following in connection with Figure 13. If in step S50 it is established that the generator program module has processed the data corresponding to the parameters,  
25 the target file is created in the step S52. In the step S54, it is subsequently checked whether the data contained in the file contain data for a preview display of the separator sheet set or data for printing of the separator sheet set. In addition to the data for printing of the separator sheet sets, the data for preview of the separator sheet set contain further data via which the outlines of the separator sheets of the  
30 separator sheet set are also shown in a preview.

- If, in the step S54, it is established that the data should serve for a preview of the separator sheet set, in the step S56 a separator sheet set is output in a preview display on a display unit. However, if, in the step S54, it is established that no preview of the separator sheet set should occur, in step S58 the PDF file is
- 5 subsequently stored or transferred to a print server or directly to a printer for output with the aid of an electrophotographic printer. After the display of the preview or the output of the print data in the steps S56 or, respectively, S58, the workflow is ended in the step S60.
- 10 A workflow of the generator program module for generation of print data with the aid of formatting information is shown in Figure 13. As already explained in connection with Figure 11 and 12, the formatting information have been generated with the aid of a first program module, preferably an assistant program module. The workflow is started in the step S80. In the step S82, it is subsequently
- 15 determined with which parameters the generator program module has been invoked. Furthermore, the invocation parameters are evaluated. In the step S84, it is subsequently checked either an initialization file is present. If this is not the case, an error message is output in the step S86.
- 20 If, in step S84, it is determined that an initialization file is present, in step S88 it is subsequently checked whether the separator sheets should be generated. If this is the case, print data are generated with preview information and transferred to the first program module according to Figure 11 and 12 in step S90. The workflow is subsequently ended in the step S 96. However, if in step S88 it is established that
- 25 no preview of the separator sheets should occur, in the step S92 a file is subsequently output with print information and print data associated per page. A log file in which the generation of the print data for printing of the separator sheets with the aid of the generator program module is documented step-by-step is subsequently generated and output in step S94. The workflow is subsequently
- 30 ended in the step S96.

Due to the inventive separation of a program for configuration and formatting of separator sheets, the generation of texts or graphic elements for printing of the print images and/or of a generator program module for generation of print data based on the formatting information and the data of the graphic elements, variable  
5 solutions for generation of separator sheets with the aid of various platforms independent of existing interfaces are simple to realize and can be very easily adapted to working processes, what is known as “workflow”. In particular the generator program module is also suitable for what is known as batch operation. Via such a batch operation, automated workflows can be realized in a very simple  
10 manner via invocation of the generator program module with predetermined parameters.

The fast generation of different separator sheet sets with predetermined or freely-configured register tabs is possible in a simple manner via the user interfaces  
15 shown in Figures 1 through 10. An efficient monitoring of each working step is possible via these user interfaces. Errors are prevented. A visualization of the effected settings, whereby an operating personnel can immediately visually detect wrong inputs, is possible at any time via the offered preview in most of the working steps or, respectively, via an automated preview in individual working  
20 steps. The texts to be generated on the register tabs can be selected, generated and processed in a simple manner. In particular a formatting of the text that should be printed on the register tabs is possible in a very simple manner.

A cascaded labeling of the register tabs is also possible in a very simple manner  
25 with the aid of the first program module. In a cascaded labeling, the letters of a word are arranged one atop another. An arrangement of the text is thereby possible in such a manner on the relatively narrow register slips, whereby this text can then also be simply and quickly read given an arrangement of the separator sheets in portrait format, for example in file folders. In particular the remaining separator  
30 sheet area outside of the register tabs can be printed with texts and graphics via an



automated superimposition of the separator sheets with an existing PDF file and insertion of additional text elements.

- Workflows for creation and configuration of separator sheets can thus be
- 5 automated with the aid of the inventive method, the inventive arrangement and the inventive computer software. Given the selection of separator sheet sets, various separator sheet profiles (in particular a waterfall profile or a single slip profile) can also be selected that are then correspondingly displayed in a preview of the complete separator sheet set. A wrong selection is then immediately visible to an
- 10 operating personnel. Given uncertainties, for example in the selection of the separator sheet type, an operating personnel is given selection help via the preview. In other exemplary embodiments of the invention, it is also possible to select images and graphics that should be printed on the register tabs.
- 15 As already described, with the aid of the generator program module a preview of the print images to be printed on the separator sheets that is true to the original can be generated and output with the aid of a display program. A very flexible further development and configuration of the entire system is possible in a simple manner via the division into a configuration program module and an executed program. In
- 20 the present exemplary embodiment, the executed program is the generator program module. A real WYSWYG [sic] function (what you see is what you get) is thereby given via which a preview coinciding with the printout is possible. The generator program module can, as already mentioned, also be executed in the batch operation. Given such a batch operation, the generator program module generates
- 25 print data based on the initialization file with format information. For example, the generator program module can be executed as a Unix script, Java applet or as a Pearl [sic] application. The PDF file generated with the aid of the generator program can be further processed in various workflows.
- 30 The separator sheets with the register tabs are preferably used for sub-division of legal and regulatory works and in the sub-division of advertising and product

information apparatuses. Furthermore, separator sheets are used as registers for telephone directories and for dictionaries and notebooks, whereby the consultation is made easier by these register tabs.

- 5 An excerpt from an initialization file is subsequently listed that is executed by the generator program module and contains configuration and formatting information for a separator sheet set.

# General PDF Information

```
10 creator=TABwizzard [sic]
author=Océ Printing Systems GmbH
title=TestTABs
subject=Reqister cards
keywords=
15 message_file=tabwizzard.log
```

# The settings for placement of the TAB texts

```
tab_Paperwidth=595
tab_Paperheight=842
20 tab_height_TB=69
tab_height=56
tab_width=37
tabsPerPage=10
tabEdge=
25 move_dx=
move_dy=
label_rotation=270
text_align=l
inverse_TABS=0
```

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```
# The font and font size to be used
FontName=Oce Garamond
FontSize=10
FontColor=-2147483640
5
# The internal required file and index structures
labellist_file=D:\Temp\TABwizzard\labellist.txt
target_PDF=d:\temp\xtabs.pdf
overlay_PDF=D:\Temp\TABwizzard\overlay.pdf
10 overlay_single=0

# Supplementary text to be inserted
add_text1=Océ Printing Systems GmbH,30,100,Oce Garamond,8,0
add_text2=8.11.200,10,10,Helvetica,10,90
15 ...
# =eof
```

Via this listing of the initialization information that is processed by the generator program, the competent average man skilled in the art receives an indication as to in which form the format information are transferred to the generator production module. The storage locations of text files, files with print images to be superimposed as well as the storage location of the target file are also contained in the initialization data.

Although preferred exemplary embodiments are shown and described in detail in the drawings and the preceding specification, this should be viewed as purely exemplary and not as limiting the application. It is noted that only the preferred exemplary embodiments are shown and described, and all variations and modifications should be protected that presently and in the future lie within protective scope of the invention.

## Reference list

	10, 28, 70, 84, 90, 100, 130, 142, 152, 154	user interface
5	12 14, 16 18, 20, 22, 24, 26, 54, 56, 58, 60, 78, 82, 108, 112, 114, 116, 102, 104,	pull-down menu section
10	122, 136, 146, 150, 64, 68, 166 30, 32, 36, 40, 42, 44, 46, 50, 52, 53, 106, 120, 132, 144	graphical function key input and output field
15	34, 38, 48 60, 62 72, 74, 76, 80 86 88	pull-down menus display window section of the user interface selection window menu item
20	92, 94 96, 118, 124 110 107, 140, 160 134	selection field check boxes selection bars list section of the user interface
25	138, 156, 158 148 162 164 S10 through S96	toolbar preview shift bar selection field method steps
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